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MARKETING OF ONE-VARIETY AND OTHER COTTON 1947-48 SEASON

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PUBLICATION NO. 1

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1947-48

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FOREWORD

This study of the marketing of cotton produced by growers in one-variety organizations and cotton produced by growers not participating in the one-variety program is a part of the Regional Cotton Marketing Research Project developed under the Research and Marketing Act of 1946. The Agricultural Experiment Stations of eleven states, the Bureau of Agricultural Economics, the Cotton Branch of the Production and Marketing Administration, and the Bureau of Plant Industry, Soils, and Agricultural Engineering cooperated in this project. The representatives of these states and agencies on the Technical Committee developed the sampling procedure and the schedules used on the study. State representatives selected the communities for study in each state and completed the field work. Data gathered in each state were tabulated and submitted to the regional office for use in preparing the regional report. The manuscript for this report was reviewed by the Technical Committee of the Regional Cotton Marketing Research Project and revised on the basis of suggestions made by the members of the committee. Other studies to be made by the group in the future include studies of mill requirements and mill buying practices; the marketing of identified cotton; the marketing of cottonseed and cottonseed products; and the efficiency and cost of marketing cotton through various channels.

R. J. SAVILLE, Chairman
Technical Committee

E.# 4347

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THE MARKETING OF ONE-VARIETY AND OTHER COTTON IN 1947-48

By William A. Faught

INTRODUCTION

The production, sale, and utilization of cotton constitutes a most important element in the economy of a number of Southern and Western states. Increasing competition at home and abroad during the past few decades, however, has threatened the economy based on this commodity and indicated the necessity of developing a sound program to aid in improving the competitive position of cotton and in expanding the market outlets. Relatively little research in the past has been directed toward the development of such a program and that which has been done generally was confined to a single phase of the over-all problem in a single state or area within a state. Therefore, in view of the magnitude of the task, an expansion of cotton marketing research has appeared desirable. The unity of interest of the people of the several cotton producing states suggested that the expanded program of research would yield maximum results if developed on a regional basis.

With the passage of the Research and Marketing Act in 1946, an opportunity developed for the states most vitally interested in cotton production to initiate a research program designed to improve cotton marketing facilities, and to increase the efficiency of the marketing system. In anticipation of the appropriation of funds to implement the purposes of the Research and Marketing Act, a group representing several cotton producing states met in Biloxi, Mississippi early in 1947 and developed the first preliminary proposals for a regional cotton marketing research project. The project proposed by this group was approved in the fall of 1947 by the Research and Marketing Administration. At a meeting in Memphis, Tennessee in October, 1947 of personnel representing the

state and Federal agencies expected to cooperate in the project, the organization of the group was effected and plans for the work during the first year were formulated.

Purpose

Various past studies, reviewed in the process of developing plans for this project, indicated that the lack of standardization, resulting partly from the production of many varieties, may have weakened the competitive position of cotton. In communities where more than one variety was produced, mixing of seed usually occurred and the quality of the lint was not maintained. The problem of marketing also was complicated by wide variations in strength, uniformity, and other quality factors even in cotton assembled in even running lots of the same grade and staple.

In an effort to correct this situation, a program was inaugurated about 1931 to facilitate the establishment of standardized one-variety cotton communities. It was hoped that these groups, organized on a community or county basis, would promote the growth of those varieties possessing the best milling qualities and that the program would result in the widespread planting of good quality seed and the maintenance of pure strains. It was also thought that the program might improve the marketing system by providing relatively large lots of uniform cotton which could be moved through the marketing process to the mills.

Even after the establishment of the one-variety program, however, expansion of the production of better quality cotton was still retarded by the fact that differences in the spinning value of various grades and staple lengths of cotton often were not reflected fully in prices paid for individual bales in local markets. As a result, producers of good quality cotton were not rewarded for their efforts to maintain pure strains of seed and to produce cotton of good grade and staple. As a means for correcting this condition, a cotton classing

service was established under the authority of the Smith-Doxey Act of 1937 to provide growers organized into cotton improvement groups with information on the grades and staples of cotton which they produced and also to make available to them current price quotations for various grades and staples. It was expected that this information would strengthen the bargaining position of cotton producers in selling their product and would emphasize the importance of producing cotton of improved quality. Groups already organized into the standardized one-variety communities were qualified to receive the free classing service upon completion of application requirements. After the establishment of the free classing and market news service, the number of communities listed as participants in the one-variety program increased sharply. By 1946 the Bureau of Plant Industry, Soils, and Agricultural Engineering reported that 1601 one-variety communities in various stages of development were in existence.[1] The 310,346 participating growers in these communities were reported to have produced 4,350,092 bales of cotton.

Considerable progress has been made in increasing the standardization of cotton production and in encouraging the use of better seed. Fifty years ago over 600 recognized varieties of cotton were grown in the South, but this number has steadily declined and at the present time it is estimated that seven varieties account for approximately 90 percent of the total cotton acreage. In recent years with increased standardization and the use of better seed, the quality of cotton produced has improved but the extent to which marketing procedures have improved is less definite. Therefore, the several cooperating states undertook, during the 1947-48 season, a comparative study of marketing practices in communities organized for one-variety production and in communities

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[1] Report of the Administrator of Agricultural Research 1947, U.S.D.A. Agricultural Research Administrator, Washington 1941, p. 302.

which were not thus organized.

Methods and Procedures

In this study a community generally was defined as a gin and its patrons but in some states where one-variety communities had been organized on an area basis, such as a township, county, or parish, a community was defined as all the ginners and growers operating in one of these designated areas. One-variety communities were defined as all communities participating in the one-variety program and appearing on the list of one-variety communities prepared by the Extension Service in each state. Any community not appearing on the Extension Service list of participants in the one-variety program were considered to be non-one-variety communities. The lists of one-variety communities are prepared by the Extension Service on the basis of first-hand information from county agents, ginners, and farm leaders in the communities listed. Frequently this information is supplemented by information secured from the Production and Marketing Administration and from other sources. The lists are revised at the end of each year but the care exercised in this revision apparently varied among the several states. The experience of enumerators in the field indicated that in some states all communities on the one-variety lists complied with the standards established for the one-variety program but in other states many communities appearing on the one-variety lists were not complying with these standards.

The lists of one-variety communities generally were used as they were received from the Extension Service and without attempting to make these lists comparable as to the degree of one-variety participation. This was done because it was the purpose of the group working on the present study to get a representative cross-section of the marketing and ginning practices being followed by producers and ginners participating in the one-variety program and compare these

practices with the practices followed by producers and ginners not in the program.

Sampling procedures were designed to uncover the maximum number of practices without regard to obtaining proportionate representation of each practice for the Cotton Belt as a whole. The basic procedure in selecting the sample was as follows. Each of the eleven cooperating states was stratified into groups of cotton producing counties and within each stratum at least one one-variety and one non-one-variety community were selected. Within each community, growers were chosen at random from lists of names supplied by gins, county agents, or other agricultural agencies in the community. All buyers purchasing cotton from the growers interviewed were included in the study. This basic plan generally was followed in each state but some variations developed in carrying out the sampling procedure because of varying local conditions or for other reasons. Some states did not use a completely random sampling procedure in selecting the communities to be studied and several states used an area sample of producers in some communities rather than a random selection of producers from lists of gin patrons. These variations are indicated in the following detailed description of the sampling procuedure used in each state.

The state of Alabama was divided into seven type-of-farming areas. Lists of counties containing one-variety communities were prepared for each area and a county was then selected from each list for inclusion in the sample. As far as possible, a random selection was made but in some areas only a single county with a one-variety community was found. A random selection of one-variety growers was made from the list of participants in the community. If lists of non-one-variety growers could be obtained from gins or other sources, a random sample was taken from this group also. In most instances, however, it was necessary to obtain the sample of non-one-variety growers by selecting an area in a county as far removed as possible from the influence of a one-variety community and choosing a random sample within this area.

The entire cotton producing area of Arizona is organized into one-variety communities. The cotton producing area was divided into segments, each of which contained approximately nine sections of cultivated land. The segments were numbered and a number between one and ten was selected at random. This random number indicated the first segment to be included in the sample and thereafter each tenth segment was selected. All growers within each segment were included in the study. All ginners and buyers operating in Arizona who were willing to cooperate also were included in the study.

In Arkansas cotton producing counties were stratified into three cotton producing groups. Fourteen counties representative of these three areas were chosen at random from the list of counties containing one-variety organizations. Within each county a one-variety and a non-one-variety community were chosen at random from lists furnished by county agents. A random sample of growers was drawn within each community from lists furnished by gins or county agents.

Georgia was divided into five areas. Cotton producing counties in each area were grouped into three classes; (1) counties having a county-wide, one-variety cotton organization, (2) counties having individual one-variety communities but no county-wide organization, and (3) counties having no type of one-variety cotton organization. One county from each of these groups was selected at random in each area. In addition to the counties selected in this way, six counties were included in the sample in order to include additional methods of marketing known to exist in those counties. In selecting the one-variety community within each area, an effort was made to choose those communities which were more highly organized. Non-one-variety communities in each area were chosen with the aid of the county agents. Growers in each community were selected at random usually from lists obtained from the records of the ginners. If such records were not available, a random choice of growers was made either from lists furnished by

buyers in the community or on an area basis.

The cotton producing area of Louisiana was divided into four sections corresponding to the cotton-quality reporting areas. In that state one-variety communities are generally organized on a parish basis. One parish of each type was selected at random from each of the four sections of the state and a random area sample of growers was selected from each of the eight parishes.

In Mississippi cotton producing counties were divided into four groups based on type-of-farming areas. Counties in each area were weighted according to the number of one-variety communities in each county and a random sample drawn from each area. An attempt was made to include at least one community of each type in each area. Wherever possible, a random sample of growers was obtained from lists of gin patrons, but if such lists were not obtainable an area sample was taken. Ginners and buyers handling the cotton of the growers included in the sample were also interviewed.

In Missouri cotton production is concentrated in a few counties located in the Southeastern corner of the state and most of the area is organized into one-variety communities. Within these counties, a random sample of one-variety and non-one-variety communities was taken and a random sample of growers was obtained from lists furnished by gins in each community.

The major cotton producing counties in Oklahoma were stratified into six areas based on the type of farming. The counties in each area were divided into three groups; (1) counties having a county-wide, one-variety organization, (2) counties having both one-variety and non-one-variety communities, and (3) counties having no one-variety communities of any type. A county was drawn at random for each of the three above groups in each area. Within each county, the community or communities (gin or gins) to be studied were drawn at random. Then the individual growers were drawn at random from lists of the gin's customers.

In choosing the communities to be studied in South Carolina, the state was divided into five strata. Within each strata two counties were selected which were believed to be representative of that area. Within each county a one-variety and a non-one-variety community generally were chosen at random. However, if a one-variety community drawn at random did not appear, upon a close examination, to be operating as such another community was drawn. Gins in each community were selected with the aid of county agents or others familiar with the area. Growers were selected from among the patrons of the gin according to distance from the gin. In selecting the sample of growers, an effort was made to secure an accurate representation of large and small producers.

The major cotton producing area of Tennessee was divided into ten strata. Counties were selected at random within each stratum and one-variety and non-one-variety communities within each county were selected at random. Lists of names of growers were secured from the ginner in each type of community and a random selection made from these lists.

In Texas the major cotton producing area was divided into six strata and one-variety and non-one-variety communities were chosen at random from each stratum. Lists of growers were secured from the ginner in each community and a random selection made from these lists.

A total of 841 growers producing 62,546 bales of cotton in 1947 was included in the sample of one-variety communities. In the non-one-variety sample, 585 growers producing 32,193 bales of cotton were included. Only those producers actually responsible for the sale of cotton were included in the sample. This procedure excluded many of the small tenant farmers and as a result the average size of the producers interviewed was greater than the average of all producers in the Cotton Belt. The sample of one-variety communities included 220 gins handling 559,130 bales of cotton while the non-one-variety sample included 140

gins which handled 205,547 bales of cotton. A total of 362 buyers also was interviewed. Although the procedures followed in compiling the lists of one-variety communities and in the selection of the sample varied among the states, the cooperating state representatives believed that a representative cross-section of one-variety and non-one-variety communities was secured.

Schedules for the study were completed during the latter part of the 1947-48 season. Considerable variations in marketing practices were revealed within the Cotton Belt and in order to facilitate an emphasis on as many details of the marketing system as possible the Belt was divided into five more or less homogeneous marketing regions and the data summarized accordingly. South Carolina, Georgia, Alabama, Tennessee, and the Hill area of Mississippi were combined into a Southeast Region while the alluvial areas lying along the Mississippi River or its main tributaries in Mississippi, Louisiana, Arkansas, and southeast Missouri were combined into the Delta Region. The Coastal Plain area of Arkansas, Louisiana, and Texas, the prairie section of Texas and Oklahoma, and the Arkansas Valley area in Oklahoma and Arkansas were all combined into an area referred to in this study as the Central Cotton Belt. The High and Low Rolling Plains of Oklahoma and Texas were combined into the Plains area. Arizona data, which generally are considered typical of the far Western area, were summarized separately.

Data for one-variety and non-one-variety producers and ginners were summarized separately and presented in the report in that manner. In addition the data were subsorted on the basis of varietal standardization and size of operation. Where a comparison of the results of these subsorts revealed significant differences, the results were indicated in the text of the report although they were not shown in individual tables. Communities in both the one-variety and non-one-variety group were sorted according to the degree of varietal standardization attained and marketing practices in the various groups were compared. Communities where 90-100 percent of the total cotton production was accounted for by a single variety formed one group;

communities with 70 to 90 percent of the total production made up of a single variety formed the second group; and other communities were combined into a third group. Producers in both types of communities were divided into larger-than-average and smaller-than-average size groups and compared. Gins were sorted into size groups according to volume of ginning and buyers were sorted according to the type and size of buying operations. Other subsorts were made for few selected items and the results were indicated in the text.

PRODUCTION PRACTICES

Size of Cotton Enterprise and Yields

The progress in the organization of one-variety groups apparently has been more rapid among larger producers for, in each area, the average acreage of cotton harvested by growers in one-variety communities was considerably larger than that of growers in non-one-variety communities (table 1). The greatest difference in the size of enterprise between types of growers was found in the Southeast where the average acreage of cotton harvested by one-variety growers was over 80 percent greater than that of the non-one-variety producers. The least difference in size occurred in the Delta where the acreage harvested in one-variety communities averaged only about 5 percent greater than that in the non-one-variety communities.

Very great variations in the average of the cotton acreage harvested also were noted among major producing areas. The size of the cotton enterprise was considerably larger in Arizona than in any other area, averaging 331 acres and smallest in the Southeast where the acreage harvested in one-variety and non-one-variety communities averaged 53 and 29 acres, respectively.

In the Southeast and Delta areas, the yields per acre of lint averaged slightly higher in the one-variety communities, but in the Central and Plains

Table 1. Number Producers Interviewed, Average Acreage, and Average Number of Bales of Cotton Produced in Selected One-Variety and Non-One-Variety Communities - 1947-48 Season

Area	Number Cotton producers		Average acreage Cotton harvested		Average bales of Cotton produced	
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.
Southeast						
Alabama	75	81	24	18	20	12
Georgia	79	60	45	42	34	30
Mississippi	75	20	90	43	65	22
South Carolina	29	52	66	31	43	21
Tennessee	70	71	50	25	40	19
Total Area	328	284	53	29	40	20
Delta						
Arkansas	31	19	483	505	411	416
Louisiana	72	50	146	52	131	45
Mississippi	35	27	364	272	339	239
Missouri	80	10	60	49	46	40
Total Area	218	106	197	189	173	161
Central						
Arkansas	47	40	104	65	41	37
Louisiana	26	34	41	14	15	5
Oklahoma	30	30	31	27	13	12
Texas	74	58	119	117	67	78
Total Area	177	162	89	66	43	40
Plains						
Oklahoma	20	20	38	55	13	23
Texas	38	13	212	234	102	191
Total Area	58	33	152	125	71	89
Arizona - Total	60	-	331	-	366	-

areas, yields were higher on the farms of producers in the non-one-variety communities. Large variations in yields were reported among the several areas of the Cotton Belt. Lowest yields were reported in the Plains and Central areas - averaging well under one-half bale per acre in both areas. The irrigated lands of Arizona produced the highest yield averaging over a bale per acre. Yields in the Delta and Southeast fell between these extremes, averaging approximately seven-eights and two-thirds bale per acre, respectively.

Degree of Standardization

Reports from growers indicate that the degree of standardization of varieties within each community varies sharply among the major producing areas of the Cotton Belt and, in some areas, a significant difference in the degree of standardization was noted between the one-variety and non-one-variety communities (table 2). The more highly standardized communities in all areas generally were made up of larger producers and in these communities yields averaged slightly higher. Although the growers' reports may not reflect accurately the degree of varietal standardization in some of the areas because of the doubtful purity of the seed planted by many growers, these reports do indicate something of the degree of development of the one-variety program.

According to reports of growers in the Southeast, a single variety accounted for 90 to 100 percent of the total production in over two-thirds of the one-variety communities but this degree of standardization existed in only about one-third of the non-one-variety communities. In about 15 percent of the one-variety communities and approximately 40 percent of the non-one-variety communities, a single variety accounted for less than 70 percent of the total production. Coker was the dominant variety in the communities of South Carolina and Southern Georgia and Alabama, while Empire and Deltapine were dominant in most of the communities in the Northern parts of Georgia and Alabama. Deltapine

Table 2. Degree of One-Variety Production in Selected One-Variety and Non-One-Variety Communities - 1947-48 Season

Area	Percentage of Production that was one-variety									
	90-100		80-90		70-80		60-70		Less than 60	
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Southeast										
Alabama	4	1	1	-	-	1	2	-	-	5
Georgia	9	3	2	2	1	1	3	3	-	3
Mississippi	7	3	2	-	-	-	-	-	-	-
S. Carolina	6	5	9	-	-	3	-	-	-	1
Tennessee	7	3	1	3	1	1	1	1	1	3
Total	33	15	15	5	2	6	6	4	1	12
Delta										
Arkansas	1	4	3	1	1	-	-	-	1	1
Louisiana	3	2	1	-	-	-	-	-	-	-
Mississippi	6	1	1	-	-	2	-	-	-	1
Missouri	3	-	-	-	-	-	2	-	4	1
Total	13	7	5	1	1	2	2	-	5	3
Central										
Arkansas	4	3	2	1	1	2	1	1	-	1
Louisiana	1	-	-	1	-	-	-	1	-	-
Oklahoma	3	1	-	1	2	2	-	1	1	1
Texas	2	2	4	1	3	2	2	-	1	5
Total	10	6	6	4	6	6	3	3	2	7
Plains										
Oklahoma	-	-	1	-	1	-	-	-	2	5
Texas	-	-	-	1	-	1	1	-	4	-
Total	-	-	1	1	1	1	1	-	6	5
Arizona	14	-	-	-	-	-	-	-	-	-

and Stoneville were the most popular varieties grown in the Hill areas of Mississippi and Tennessee although Half & Half predominated in a few communities of Tennessee. The varieties noted above were dominant in both types of communities

but accounted for a much greater portion of the total production in the one-variety communities throughout the area. In the non-one-variety communities a substantially larger volume of cotton was produced from seed of unknown variety.

In the Delta fewer varieties were grown than in the Southeast but the degree of standardization within the communities was lower and the difference between the two types of communities was less marked. Deltapine and Stoneville accounted for slightly more than 85 percent of the total production of all growers interviewed. A single variety, however, accounted for 90 to 100 percent of the total production in only about one-half of either type community. In these highly standardized communities, yields were slightly higher and farms slightly larger than in other communities in the area. A single variety made up less than 70 percent of all the cotton grown in approximately one-fourth of both one-variety and non-one-variety communities.

In the Central Belt the degree of standardization was even less than in the Delta, although the difference in standardization between types of communities was more marked. In this area reports of growers interviewed indicated that a single variety accounted for 90 to 100 percent of the total in less than 40 percent of the one-variety communities and in less than 25 percent of the non-one-variety. In approximately 20 percent of the one-variety and 40 percent of the non-one-variety communities, a single variety accounted for less than 70 percent of the total crop of reporting producers. Here, as in other areas, the highly standardized communities were composed generally of larger-than-average producers but in contrast with other areas, average yields were slightly lower. In this Central Belt a greater number of varieties of cotton was produced than in either the Delta or the Southeast. Deltapine and Rowden were the leading varieties in this area and each accounted for approximately 30 percent of the total production. Producers of Rowden cotton were concentrated in the hill sections of Arkansas and East Texas, while producers of Deltapine were scattered throughout the area

but concentrated in the Black Prairie. Other varieties produced in the Central Belt included Stoneville, Mebane, Delfos, Half & Half or Hibred, Lankhart, Coker and, in South Texas, Acala.

The lowest degree of standardization was reported in the Plains area of Texas and Oklahoma. There were no 90 to 100 percent standardized communities in this area and approximately three-fourths of both types of communities reported that less than 70 percent of the total production was of a single variety. A greater number of varieties also was produced in the Plains than in any other area; the most important including Hibred, Deltapine, Macha, Acala, Northern Star, and Paymaster. A small amount of Mebane, Early Prolific, Lankhart and some cotton of unknown variety also was grown.

In Arizona Acala accounted for approximately 99 percent of the total cotton produced. The whole cotton producing area of Arizona is organized into one-variety communities and almost 100 percent standardization was reported.

Characteristics of Planting Seed Used

Differences in the degree of standardization between one-variety and non-one-variety communities actually may be somewhat greater than the discussion in the preceding section would indicate, due to the fact that producers in the latter type of communities were less careful in maintaining purity of strains. A higher proportion of the growers in the one-variety communities in all areas of the Cotton Belt, except the Delta, reported the use of either breeder, certified, or noncertified seed only one year removed from the breeder. A greater number of growers in the other communities reported the use of seed of unknown origin or uncertified seed which was two or more years removed from the breeder (table 3). The tendency of growers in one-variety communities to use higher quality seed is also indicated by the sources from which they obtained their planting seed. A considerably larger number of the growers in these communities secured registered

or pedigreed seed directly from the breeder or through the gin, while a larger portion of the growers in non-one-variety communities used seed obtained from their own fields or from their neighbors. Ginners in both types of communities

Table 3. Proportion of Growers Planting All or a Portion of Their Acreage with Seed of Specified Breeding in Selected One-Variety and Non-One-Variety Communities 1947-48 Season

Area	Breeder		Certified		Noncert. one year from breeder		Noncert. second yr. from breeder		Noncert. third yr. from breeder		Other or don't know	
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.
	%	%	%	%	%	%	%	%	%	%	%	%
Southeast												
Alabama	12	-	46	67	20	5	9	12	-	1	15	20
Georgia	10	7	30	20	29	27	29	35	5	15	4	7
Mississippi	25	40	64	20	23	20	19	25	4	-	-	10
S. Carolina	14	-	7	17	38	31	28	33	10	10	3	12
Tennessee	36	14	29	18	6	7	20	54	16	14	-	3
Total Area	20	8	39	32	21	16	20	32	6	9	5	12
Delta												
Arkansas	-	5	-	-	26	32	58	63	10	-	6	-
Louisiana	6	-	51	58	3	-	42	32	6	8	1	2
Mississippi	57	41	6	44	17	26	20	22	17	18	3	-
Missouri	35	20	-	-	44	10	31	70	1	10	9	-
Total Area	24	14	18	39	23	13	37	39	6	9	5	1
Central												
Arkansas	2	-	-	-	32	32	57	56	6	-	2	-
Louisiana	-	-	28	47	32	3	32	35	8	9	4	15
Oklahoma	10	7	53	50	13	13	13	17	3	7	10	10
Texas	81	72	9	-	27	40	7	10	-	-	-	-
Total Area	36	27	17	19	27	25	27	28	3	3	2	5
Plains												
Oklahoma	55	35	25	15	30	45	15	20	-	-	10	5
Texas	97	92	-	-	24	-	-	8	-	-	-	-
Total Area	83	58	9	9	26	42	5	15	-	-	3	3
Arizona	-	-	45	-	55	-	-	-	-	-	-	-

attempted to obtain good-quality seed of known variety but a slightly larger proportion of gins in the one-variety communities obtained their seeds directly from the breeder and therefore were assured of the purity of the seed distributed. Many gin operators in both types of communities throughout the Cotton Belt, however, did not take adequate precautions to assure that seed would not be mixed during the ginning process.

Considerable variations existed in the type of seed planted in the several areas of the Cotton Belt. Growers in Arizona and the Plains area used either breeder, certified, or first-year seed to a greater extent than did growers in the remainder of the Belt. The planting of such seed was least common among growers in the Delta. Moreover, the producers using breeder or certified seed in the Delta were concentrated almost entirely in the communities having 100 percent one-variety gins and producing certified seed. The relative position of the Plains area and the Delta area may be due, at least in part, to the production of a greater number of varieties within each community in the Plains making more frequent renewal of seed stocks necessary for maintaining purity of strains. A slightly lower proportion of all growers in the Southeast and Central Belt planted breeder, certified, or first-year seed than did the growers in the Plains or Arizona. However, significant differences were noted in the quality of seed used in the two types of communities with one-variety growers reporting the use of higher quality seed. The tendency to use high quality seed was particularly marked in the 90-100 percent standardized communities of the Southeast.

There were also some regional variations in respect to the source of seed used by growers (table 4). In the Southeastern region, breeders were the most important source of seed for one-variety growers but growers in other communities more generally secured seed from their own farms or from their neighbors. In the Delta a considerable number of growers in both types of communities bought seed direct from breeders or from gins, but approximately one-third of the

Table 4. Proportion of Growers Obtaining Seed from Specified Sources in Selected One-Variety and Non-One-Variety Communities 1947-48 Season

Area	Breeder		Gin		Seed dealer		Home grown		Neighbor		Other	
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.
	%	%	%	%	%	%	%	%	%	%	%	%
Southeast												
Alabama	35	35	8	9	15	7	12	27	15	21	16	7
Georgia	64	48	16	10	-	-	24	42	5	12	-	2
Mississippi	16	25	9	10	43	35	48	35	5	-	3	-
S. Carolina	55	10	3	33	-	4	24	38	14	12	3	4
Tennessee	30	21	36	17	-	-	41	69	-	1	-	-
Total Area	38	29	16	16	13	5	30	43	7	11	5	3
Delta												
Arkansas	16	21	3	5	23	21	48	47	6	5	3	-
Louisiana	12	8	15	8	36	48	35	24	10	10	-	-
Mississippi	40	30	-	-	11	52	51	81	14	-	3	-
Missouri	26	10	50	20	-	-	27	70	9	-	-	-
Total Area	22	16	24	7	17	40	37	47	10	6	1	-
Central												
Arkansas	15	8	21	-	17	28	34	50	11	10	2	5
Louisiana	16	3	8	15	40	35	36	29	16	9	-	18
Oklahoma	3	3	63	63	20	-	13	20	3	13	-	13
Texas	18	17	54	67	8	12	19	26	4	12	15	-
Total Area	15	9	40	39	17	18	24	31	7	11	7	5
Plains												
Oklahoma	10	5	70	45	-	5	40	30	-	25	-	-
Texas	-	8	92	92	21	8	16	31	-	8	-	-
Total Area	3	6	84	64	14	6	24	30	-	18	-	-
Arizona	3	-	77	-	2	-	8	-	10	-	-	-

producers in the one-variety communities and almost one-half of those in the non-one-variety communities reported that all, or a portion, of their seed was grown on their own farms. In the Central Cotton Belt, few growers in either type of

community secured seed directly from breeders but generally used seed secured from gins or produced on their own farms. The purity of the seed distributed by the gins in this area is questionable, however, for a large portion of such seed had been purchased from local producers during the preceding year and over half the gins in both types of communities reported that the seed which they distributed were two or more years removed from the breeder. In the Plains area of Texas and Oklahoma, gins distributed most of the seed to growers in both types of communities. Seed distributed by the non-one-variety gins in this area generally were reported to be of better quality than that distributed by the other gins, however, the farmer being almost entirely breeder or first-year seed. Approximately one-fourth of the one-variety growers in this area reported the use of home-grown seed compared with approximately one-third of the non-one-variety growers who reported the use of this source of seed. In Arizona where practically all the cotton is produced in one-variety communities all seed used was either certified seed or noncertified seed one year removed from the breeder. Gins, which are owned or controlled by finance companies, supply most of the growers with seed, provide the credit for production of the crop, and buy the cottonseed and lint. A very rigid control is maintained over the supply of seed and good seed stocks are maintained.

Number of Gins Patronized and Distance from Gin

Although the characteristics and methods of operation differ somewhat among gins patronized by growers, the primary factor affecting the choice of gin appears to be the distance from farms to gin. Growers normally tend to gin their cotton at the gin nearest their farm but if they are located a considerable distance from several gins, they frequently split their ginnings among two or more gins. In 1947-48 the proportion of producers patronizing only one gin was greater and distance to the gins averaged slightly less in the one-variety

communities in each area than in other communities (tables 5 and 6). Moreover, the number of gins patronized generally was greatest where gins were fartherest removed from farms.

The proportion of growers patronizing a single gin ranged from about one-half in the non-one-variety communities of the Plains to over 90 percent in the one-variety communities of the Delta and Arizona (table 5). Less than 5 percent of the producers interviewed in either type of community in any area reported that they patronized more than two gins.

Table 5. Proportion of Growers Patronizing Indicated Number of Gins in Selected One-Variety and Non-One-Variety Communities[1]
1947-48 Season

Number of Gins	Southeast		Delta		Central		Plains		Arizona
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.
	%	%	%	%	%	%	%	%	%
One gin	81	76	92	70	88	83	72	52	96
Two gins	17	22	7	27	10	15	26	48	1
Three gins	2	2	1	3	2	2	2	-	3
Total	100	100	100	100	100	100	100	100	100

[1] In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas

The average distance from the farm to the nearest gin patronized in one-variety communities ranged from about 2 3/4 miles in the Southeast to slightly over 5¼ miles in the Central area. In the non-one-variety group the average distance ranged from 3 miles in the Southeast to 5½ miles in the Central area. Well over half the cotton produced in each area by the growers interviewed was hauled less than 5 miles to the gin (table 6). The greatest percentage of the

Table 6. Proportion of Cotton Hauled Indicated Distance to Gins in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Distance	Southeast		Delta		Central		Plains		Arizona
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.
	%	%	%	%	%	%	%	%	%
Less than 1 mile	34	6	19	22	10	4	2/	-	1
1 to 2 miles	17	13	16	7	6	12	1	1	20
2 to 3 miles	13	20	15	19	20	16	17	13	18
3 to 4 miles	11	19	10	14	16	26	27	37	17
4 to 5 miles	9	12	4	6	14	4	30	28	10
5 to 6 miles	8	9	11	9	5	14	20	17	10
6 to 7 miles	5	9	5	2	12	3	2	2	-
7 to 8 miles	1	4	2	1	2	14	1	1	8
8 to 9 miles	1	2	1	1	7	2	2	1	2/
9 to 10 miles	2/	1	14	2/	1	1	2/	2/	6
10 to 15 miles	1	5	3	18	6	2	2/	-	4
15 to 20 miles	-	2/	2/	2/	2/	2	2/	-	-
20 miles and over	2/	-	2/	1	1	2/	-	-	6
Total	100	100	100	100	100	100	100	100	100

[1] In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

[2] Less than .5 percent.

cotton hauled this distance was reported in the Southeast. Only in Arizona and in the non-one-variety communities of the Delta was any very large amount hauled over 10 miles.

GINNING PRACTICES

Volume of Cotton Ginned and Type of Ownership

The volume of cotton ginned and ownership of gins patronized by the growers interviewed in 1947-48 differed between one-variety and non-one-variety groups in all areas. Variations in the number of patrons per gin, however, between the two groups were not consistent in the several areas and in most instances the difference did not appear to be significant.

The average volume of cotton handled by one-variety gins was considerably larger than the non-one-variety ones in all areas (table 7). The greatest difference between one-variety and non-one-variety groups in the volume ginned occurred in the Central area, where the average number of bales handled by gins in the one-variety group exceeded that of the non-one-variety by over 50 percent.

Table 7. Average Number of Bales Ginned and Average Number of Patrons of Gins in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Area	Average number of patrons		Average number of bales ginned	
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.
Southeast	238	171	1608	1180
Delta	100	136	2230	2031
Central	159	121	1827	1190
Plains	149	185	3742	3249
Arizona	60	-	5231	-

[1] In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

The least difference between these groups occurred in the Delta where the average number of bales handled by the one-variety group exceeded the average of non - one-variety group by only 10 percent. The largest number of bales per gin was handled by the gins in Arizona. This state also reported the smallest number of patrons per gin, the largest average cotton enterprise, and the greatest degree of varietal standardization. In that area the gins maintained a rather rigid control of planting seed and producers used only certified on first-year non-certified seed. The largest number of patrons and the smallest number of bales per gin were reported by the gins in the Southeast - the area with the smallest average cotton enterprise but the area which ranked next to Arizona in the degree of varietal standardization.

Some difference in the type of ownership of gins existed between the one-variety and non-one-variety communities which was rather general throughout the Cotton Belt (table 8). Individual holdings were the most important type of ownership found in each area except the Plains and Arizona but this type of holding was more common in the non-one-variety communities. A number of partnership gins were found in both groups of communities but were slightly more numerous in the one-variety group. Cooperative gins and gins operated by corporations also were found more frequently in this group. Cooperative gins were more common in the Plains than in other areas while the greater concentration of gins owned by corporations was in Arizona. The importance of the cooperative and corporation gins was greater than their numerical frequency would indicate, for these gins generally handled a larger volume of cotton than the individual or partnership gins. The difference in the volume ginned between the cooperative and corporation gins and the gins held individually or in partnership was particularly marked in the Plains and in Arizona.

Table 8. Proportion of Gins of Indicated Type of Ownership in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Type of Ownership	Southeast		Delta		Central		Plains		Arizona
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.
	%	%	%	%	%	%	%	%	%
Individual	46	50	34	67	45	58	8	43	8
Partnership	34	33	23	16	18	15	8	-	14
Corporation	13	17	34	10	10	15	23	14	78
Cooperative	7	-	9	7	27	12	61	43	-
Total	100	100	100	100	100	100	100	100	100

[1]In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

Additional Commercial Activities Engaged in by Ginners

Since the ginning season extends over a relatively short period, the operators generally engaged in a number of commercial activities in addition to operating gins. Some of the additional activities of ginners extended throughout the year but most were seasonal in nature and usually closely associated with ginning operations. The nature of these activities did not vary significantly between the one-variety and non-one-variety groups but differed considerably between the major producing areas (table 9). In the Southeast with the greatest proportion of individually owned gins and with the smallest average volume of ginning, the major additional activities engaged in by ginners included farming, the sale of seed and fertilizers, general merchandising, and the buying of cotton. In the Delta and Central areas ginners engaged in approximately the same activities although the relative importance of the activities varied. In the Plains most of the gin operators were engaged in the sale of feed or seed

but a substantial portion of the gins were owned by corporations which also operated oil mills. In Arizona gin operators generally engaged in farming or ranching, the financing of cotton production, and the operation of oil mills and compresses.

Table 9. Proportion of Gin Operators Engaged in Indicated Commerical Activities in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Activities	Southeast		Delta		Central		Plains		Other
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.
	%	%	%	%	%	%	%	%	%
Farming & ranching	56	43	47	75	42	38	8	-	67
General Merchandise	20	21	14	46	12	21	8	-	3
Oil Mill	3	5	16	4	10	10	23	67	73
Cotton Broker or Buyer	30	33	29	17	16	28	23	33	17
Seed Dealer	28	13	29	-	29	17	85	50	-
Banking or financing	4	2	18	4	5	-	-	-	67
Fertilizer Dealer	37	33	18	-	3	-	-	-	-
Feed Dealer	14	7	8	-	24	14	77	17	-
Saw mill, Lumber Yard	6	3	4	-	3	-	-	-	-
Farm Machinery	4	3	6	-	-	-	-	-	-
Warehouse	14	13	-	-	5	7	-	-	-

[1] In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

Gins Securing Planting Seed for Growers

In addition to regular ginning services, many ginners perform other functions for their farmer patrons. Among the most important of these is the procurement of planting seed. As indicated previously, a large number of farmers secured all or at least part of their planting seed through local gins. The practice of securing planting seed for growers was more generally followed by the ginners in one-variety communities in all areas except the Delta (table 10).

Table 10. Proportion of Ginners Purchasing Planting Seed for Distribution to Growers in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Area	One-Variety	Non-One-Variety
	%	%
Southeast	72	54
Delta	43	47
Central	77	67
Plains	100	100
Arizona	73	-

[1]In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

The proportion of gins securing planting seed ranged from a low of approximately 43 percent of the one-variety ginners in the Delta to a high of 100 percent in both groups of the Plains. Ginners generally secure planting seed from the seed breeders and most of the seed they distributed was either breeder or the first-year's increase from breeder seed (table 11). A notable exception to this general tendency has already been pointed out for in the Central area the proportion of ginners securing seed from breeders was relatively low and a very high proportion purchased field-run seed or seed of unknown breeding. In all areas except the Plains, however, a slightly higher proportion of ginners in one-variety communities secured planting seed from breeders.

Practically all the seed distributed by ginners was cleaned and treated and the bulk was delinted in all areas except the Central (table 12). No significant difference was apparent among one-variety and non-one-variety gins in the proportion of seed which was cleaned, delinted, or treated. The planting seed handled by gins generally was stored in either special seed houses or sacked and

Table 11. Proportion of Gins Securing Planting Seed for Distribution to Growers From Indicated Sources in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Area	Breeder		Farmer		Other	
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.
	%	%	%	%	%	%
Southeast	79	74	15	12	13	14
Delta	75	57	12	7	29	36
Central	47	47	23	27	35	27
Plains	100	75	-	25	-	-
Arizona	2/	-	2/	-	2/	-

[1]In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

Table 12. Proportion of Seed Purchased by Gins for Distribution to Growers which was Cleaned, Delinted, Treated in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Area	Cleaned		Delinted		Treated	
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.
	%	%	%	%	%	%
Southeast	74	81	80	62	87	81
Delta	89	100	82	98	89	100
Central	96	98	48	69	96	96
Plains	100	99	83	66	99	99
Arizona	100	-	100	-	46	-

[1]In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

[2]No Data.

stored in the gin or cotton house. A few gins reported that planting seed were not stored but were delivered to the farmer as soon as received. The practices followed in regard to storage of planting seed did not differ significantly between the two types of communities.

Special Equipment Used by Gins

Gins throughout the Cotton Belt generally had extractors or auxiliary cleaning equipment but special drying equipment and seed scales were less common (table 13). All ginners contacted in Arizona, the Plains, and Central areas reported having some type of special cleaning equipment which was used in conjunction with regular gin stands on at least part of the cotton ginned. Most of the gins in the Southeast and Delta also had such equipment and no significant difference was apparent between the proportion of one-variety and non-one-variety ginners reporting the use of this equipment.

Drying equipment was found most often in the gins of the one-variety communities of each area. The more frequent occurrence of driers in these gins, however, might be due to their greater volume of ginning and the fact that they serve larger producers. Other factors which appear to have influenced the installation of drying equipment include the amount of rainfall during the harvesting season, the extent of mechanical harvesting, and the intensiveness of cotton culture. A somewhat smaller proportion of the gins in Arizona reported the use of drying equipment than in the one-variety communities in other areas although the average volume of ginning was larger than elsewhere in the Cotton Belt. The dry climate in Arizona and the fact that all but a small portion of the cotton produced is hand picked reduced the need for driers. In the Plains, however, most gins were equipped with drying equipment. Even though the climate is relatively dry there, the widespread use of strippers which results in the harvesting of many inmature bolls and the collection of a large amount of

Table 13. Proportion of Gins with Indicated Type of Equipment in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Type of Equipment	Southeast		Delta		Central		Plains		Arizona
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.
	%	%	%	%	%	%	%	%	%
Auxiliary cleaning equipment	97	96	96	97	100	100	100	100	100
Driers	61	48	92	70	65	39	92	86	54
Seed scales	42	34	30	40	43	-	92	75	5

[1]In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

foreign matter, make the use of driers most desirable. Also, gins in that area handled a large volume of cotton and could afford to install and operate driers. A very large proportion of the gins in the Delta reported having drying equipment, for although most of the cotton in the Delta is still picked by hand, the limited supply of labor relative to the amount of cotton grown in that area and the rather frequent rains during the harvesting season, often results in the harvesting of damp cotton which must be dried if it is to be ginned most efficiently. Moreover, gins in the Delta generally have a sufficiently large volume of ginning to use driers economically. In the Southeast and Central areas where driers were least common, volume of ginning was lowest and many gins cannot use driers efficiently. Another reason for the infrequent occurrence of driers in these areas is that the pressure on the labor supply during the harvesting season is not as great and the need for cotton driers is less pressing.

Seed scales were used by relatively few ginners in any area except the Plains. Differences between the proportion of one-variety and non-one-variety ginners reporting the use of seed scales did not appear to be significant nor

were these differences consistent throughout the Cotton Belt. Neither did the use of seed scales appear to be influenced by practices followed in regard to the purchase of seed. Most of the ginners in all areas reported that they bought cottonseed from their patrons outright although ginners in a few sections generally handled seed for their patrons on a commission basis (table 14). A few gins reported that their patrons usually sold cottonseed to a cooperative organization or as planting seed.

Table 14. Ginners Reporting Patrons Selling Cottonseed in Indicated Manner in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Method of Sale	Southeast		Delta		Central		Plains		Arizona
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.
	%	%	%	%	%	%	%	%	%
Through ginner as a commission agent	3	3	25	3	10	-	-	29	5
To ginner as an independent buyer	93	94	68	90	77	88	54	71	95
To cooperative	4	-	5	-	8	3	46	-	-
Other	-	3	2	7	5	9	-	-	-
Total	100	100	100	100	100	100	100	100	100

[1] In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

Measures Taken by Ginners to Prevent Mixing of Seed

In addition to securing seed for planting, ginners have an important role in maintaining purity of strains in preventing the mixing of varieties during the ginning process. Many ginners in both one-variety and non-one-variety communities were lax in the application of measures to prevent the mixing of seed

Table 15. Proportion of Ginners Taking Indicated Precautions to Prevent Mixing of Seed of Different Varieties During Ginning Process in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Precaution	Southeast		Delta		Central		Plains		Ariz.
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.
	%	%	%	%	%	%	%	%	%
No precautions	5	12	5	3	8	6	-	-	-
Drop seed roll only	31	36	23	27	30	21	-	-	-
Cleaned seed conveyors only	-	4	5	-	-	-	-	-	-
Ginned one or more bales before saving seed	5	12	14	10	26	28	8	43	-
Caught seed at gin stand	2	4	23	13	-	15	-	-	-
Ginned one or more bales & catch seed at stand	-	1	-	-	-	3	-	-	-
Dropped seed roll and cleaned conveyors	5	3	-	-	-	9	8	-	-
Dropped seed roll and ginned one or more bales single variety before saving seed	20	15	4	-	18	6	46	29	-
Dropped seed roll and caught seed at stand	4	4	-	-	-	3	-	-	-
Dropped seed roll, ginned one or more bales before saving seed, & caught at stand	4	1	-	3	-	-	-	-	-
Dropped seed roll, ginned one or more bales and cleaned conveyors before saving seed	2	4	2	-	-	-	8	14	-
Pure seed system	3	-	9	17	2	-	-	-	-
Cleaning and have gin days for single varieties	3	1	2	-	2	-	-	-	-
Other combinations	9	3	9	17	10	9	30	14	-
100% one-variety gins	7	-	4	10	5	-	-	-	100

[1]In states of Alabama, Georgia, Mississippi, South Carolina, Tennessee, Arkansas, Louisiana, Missouri, Oklahoma, Texas, and Arizona.

during the ginning process. Those in one-variety communities, however, were slightly more cautious (table 15). This general tendency was noted throughout the Cotton Belt. Only about 15 percent of the gins included in the study were 100 percent one-variety gins. Most of these gins were located in the highly standardized areas of Arizona with a very few reported in other areas. The majority of strictly one-variety gins were in one-variety communities but some were plantation gins in the Delta which were not a part of such an organization. Since it is difficult or impossible to be absolutely sure that no mixing will occur when more than one variety is ginned, it is probable that growers who planted nonregistered or noncertified seed and did not gin at 100 percent one-variety gins actually had a mixture of varieties even if they reported growing only one variety.

The Utilization of Government Classing Service

The government classing service established under the authority of the Smith-Doxey Act was created primarily to provide free, reliable information regarding the quality of cotton to growers organized into cotton improvement groups. This service is made available to growers through gins or warehouses which, after meeting the various regulatory requirements, submit samples of the ginned cotton to the government classing service in accordance with the regulations regarding such samples. After the cotton is classed at the government classing office, growers are notified of its grade and staple length. In addition to the gins in cotton improvement associations organized according to the Smith-Doxey regulations, a small number of gins cooperated in the cotton quality statistics work and submitted samples to the government classing office. Occasionally, other gins which are not a part of a cotton improvement association have submitted samples to the government classing service on a fee basis. Except in the Plains area, most of the gins which were in the cotton improvement associations

and eligible to receive free classing service were also in communities organized for one-variety production; most of the gins which were not a part of a cotton improvement association and generally not eligible for free classing service were not in communities organized for one-variety production.

A considerable proportion of the cotton ginned at one-variety gins in all areas was classed but the highest proportion was in Arizona (table 16). Most of the ginners in the one-variety group submitted samples of all the cotton ginned. Some of them, however, submitted samples on only a portion of their ginnings and some did not submit samples on any of the cotton handled at their gins.

Table 16. Proportion of Samples sent to Classing Service from Gins in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Area	Proportion of total samples sent to Government Classing Office	
	One-Var.	Non-One-Var.
	%	%
Southeast	63	26
Delta	58	17
Central	60	26
Plains	78	90
Arizona	94	-

[1] In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

Since more of the one-variety gins in all areas but the Plains are also a part of the Smith-Doxey group, a much greater proportion of the cotton handled by these gins is classed by the government classing office. In the Plains most of the gins in both one-variety and non-one-variety communities were a part of cotton improvement groups and submitted samples to the government classing office.

Neither the volume of cotton ginned nor the degree of varietal standardization existing in the communities appeared to affect significantly the proportion of cotton classed by the government classers.

Means of Identifying Bales

Considerable variation in the means of identification and in the information shown on each bale was noted throughout the Cotton Belt but little difference was reported between one-variety and non-one-variety gins in identification. In the Southeast and Delta areas, paper tags were the most common means of identifying bales (table 17). Over half the cotton in both areas was marked with paper tags only and a substantial proportion was marked with a combination of paper tags and stenciling or paper tags and metal tags. A relatively small proportion was marked with metal tags only or by stencil only. A small amount of cotton in the Southeast which moved directly from the gins to mills was not marked with any special sort of identifying tag at the gin. In the Central and Plains areas the cotton generally was marked with metal tags only or a combination of metal and paper tags. In Arizona a combination of paper tags and stencils was generally used, although a combination of metal tags, paper tags, and stenciling was used to mark a considerable volume of the cotton in that area.

The most complete information generally appeared when paper tags were used. As a rule, gins reporting the use of paper tags only indicated that the gin or warehouse bale number and the gin name and address were shown. Frequently the grower's or owner's name or initial and the bale weight were also shown and in some cases the ginning date and area of growth were indicated. Stenciling was used in combination with paper tags in a very few instances and these generally were in the Delta. Where this combination was used, about the same information was shown as when the paper tag was used alone. Cotton which was marked with metal tags only generally carried the gin name and address and the bale number.

Table 17. Proportion of Cotton Identified in Indicated Manner in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Type tag	Southeast		Delta		Central		Plains		Arizona
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.
	%	%	%	%	%	%	%	%	%
Paper tag only	52	48	50	36	16	11	-	-	-
Paper and stencil	2	1	28	55	3	5	-	-	57
Metal and paper	15	10	-	-	51	44	87	70	18
Metal tag only	20	26	12	-	25	30	5	-	-
Metal and stencil	3	-	-	-	3	10	-	-	-
Stencil only	3	8	10	9	2	2/	-	-	-
Metal, paper and stencil	-	5	-	-	2/	-	8	30	24
Other	2	1	-	-	-	-	-	-	1
No identification	3	1	-	-	-	-	-	-	-
Total	100	100	100	100	100	100	100	100	100

[1] In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas

[2] Less than .5 percent.

Other information seldom was shown. When the paper tags were combined with metal tags, however, a considerable amount of additional information was frequently shown. In many areas where this combination was used the owner's or grower's name or initial was indicated, the permit number of the gin was shown, and the number or initial of the person packing the bale was sometimes indicated. When stenciling was used in combination with the metal tag, the owner's or grower's name or initial usually was shown in addition to the bale number, gin name, and gin address.

Certain basic information was usually given on each bale no matter what type

of tag was used (table 18). Practically all bales of cotton in each area carried either the gin or warehouse number and generally were identified by gin name. A large proportion of the cotton in the Delta and in Arizona was marked with the gin address and with the grower's name and initial. In other areas, however,

Table 18. Proportion of Cotton Bearing Indicated Information in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Information shown	Southeast		Delta		Central		Plains		Arizona
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.
	%	%	%	%	%	%	%	%	%
Gin or warehouse bale number	100	78	96	89	97	99	100	100	100
Gin name	84	44	86	90	96	97	100	100	57
Gin address	42	23	72	61	14	21	5	17	56
Grower's or owner's name or initial	46	33	61	51	20	32	5	13	82
Bale weight	20	22	18	28	11	12	-	-	8
Ginning date	2	-	1	-	-	-	-	-	-
Permit number	22	6	-	-	-	-	-	-	-
Area of growth	-	-	6	2	-	-	-	-	-
Bale packer	-	-	3	-	-	-	7	-	-
Variety	-	-	9	2	-	-	-	-	-
Seed weight	-	2	-	-	-	-	-	-	-

[1] In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

only a relatively small proportion of the bales of cotton carried information which would indicate the area from which it came. It is significant also that only a very small proportion of the cotton carried information as to the variety

of cotton or information which would readily indicate the year of growth. Without this information being shown, it is very unlikely that any substantial volume of cotton can be marketed as cotton from one-variety communities, and mills can not be assured supplies of cotton of specified variety or area of growth. Also, it is unlikely that much of even the small amount of cotton identified as to variety and origin at the gin ever reached the mills with this information still attached, since both metal and paper gin tags are frequently lost or removed during the marketing process.

Ginners Purchasing Cotton at the Gin

In addition to ginning the cotton, buying the cottonseed, supplying planting seed, and performing various other services for the farmers many ginners also purchased the cotton lint. In many instances this function is one of the major operations of the ginners but frequently it is performed as a service to the growers only and undertaken because other buyers are not available in the community. Replies of ginners interviewed in 1947-48 indicated that this practice was not confined to any particular size group, for both large and small ginners were engaged in this activity to approximately the same extent; nor did the proportion of ginners performing this function differ significantly between one-variety and non-one-variety in most areas (table 19). In the Southeast over half the ginners in both groups reported that they bought cotton at their gins, while in the Delta approximately one-third of both groups reported that they performed this function. In the Central and Plains areas well over half of all ginners bought cotton but a much higher proportion of non-one-variety ginners reported that they were engaged in this activity.

Table 19. Ginners Buying Cotton and Proportion of Ginnings Purchased in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Item	Southeast		Delta		Central		Plains		Arizona
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.
	%	%	%	%	%	%	%	%	%
Ginners buying cotton	57	54	34	30	50	70	69	86	62
Proportion of total ginnings purchased by ginners	41	35	33	26	49	48	38	93	21

[1] In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

Storage of Cotton After Ginning

Practices followed in regard to storage of cotton immediately after ginning varied rather sharply among some of the areas but the difference between the one-variety and non-one-variety group did not appear to be significant (table 20). In the Southeast where the bulk of the cotton goes directly from the local market to the mills and is not compressed, most of the cotton was stored in relatively small public or private warehouses and only a small amount was stored at the gin yard or moved to other storage locations. In the Delta area slightly different practices were followed in the storage of cotton. Here, almost all cotton was compressed before shipment to the mill areas and most of the cotton moved immediately from the gin to large public compresses. Similar practices were followed in the Plains area as in the Delta but a slightly higher proportion of the cotton was left at the gin yard and a small amount was moved to railway platforms or back to farms as soon as it was ginned. In the Central area and in Arizona, however, most of the cotton was allowed to remain on the gin yard

for some time after ginning, usually until sold.

Table 20. Proportion of Cotton Stored at Indicated Locations After Ginning in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Place of Storage	Southeast		Delta		Central		Plains		Arizona
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.
	%	%	%	%	%	%	%	%	%
Gin yard	11	13	13	13	72	58	17	24	90
Railroad platform	1	3	-	1	5	5	-	3	-
Public cotton yard	2/	2/	-	-	4	9	-	-	-
Private warehouse	14	19	-	-	7	3	21	-	-
Public compress and warehouse	67	57	87	86	12	25	61	70	10
At farm	2	3	-	2/	-	-	1	3	-
No storage	5	5	-	-	-	-	-	-	-
Total	100	100	100	100	100	100	100	100	100

[1] In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

[2] Less than .5 percent.

Ginners' Opinion of the One-Variety Cotton Program

The opinions of ginners in the four areas where reactions to the one-variety cotton program were tested, generally were favorable in both one-variety and non-one-variety groups (table 21). The majority of ginners in all four areas expressed an opinion ~~felt~~ that the one-variety program had been helpful or would be helpful if established in their community. This feeling was stronger in the Southeast where the one-variety program had made more progress in establishing varietal standardization. In the Delta, Central, and Plains areas a lesser degree of standardization existed,

and a substantial portion of the one-variety ginners felt that the program had been of no benefit to growers or had made no change. A high percentage of non-one-variety ginners in the Central and Plains areas did not think that the organization of one-variety groups in their community would benefit the growers.

Table 21. Proportion of Ginners Reporting Indicated Reaction to One-Variety Program in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Item	Southeast	Delta	Central	Plains	Arizona
	%	%	%	%	%
One-variety					
One-variety program has helped growers	90	61	74	73	2/
One-variety program has not helped growers	6	30	23	27	2/
One-variety program has made no change	4	9	3	-	2/
Total	100	100	100	100	
Non-One-Variety					
One-variety program would help growers	80	82	74	43	-
One-variety program would not help growers	13	11	20	43	-
One-variety program would make no change	7	7	6	14	-
Total	100	100	100	100	

[1] In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

[2] No data.

Comments of the ginners on the program indicated that they believed the greatest benefits to the growers resulted from the use of high-quality seed. They generally felt that the use of such seed led to the production of more longer staple cotton and aided in increasing per acre yields. They also felt that other quality factors were improved and that average prices paid growers in local markets had been increased. A considerable number of ginners reported that they believed the increased standardization which had resulted or which would result from the establishment of one-variety communities would eventually lead to the increased assembling of cotton in local markets into even-running lots. Other ginners felt that where growers in one-variety communities availed themselves of the free classing service, they improved their bargaining position and local market more nearly reflected differences in the quality of the cotton. Most of the ginners who indicated an unfavorable opinion of the program reported that their opinions were based on the belief that farmers had not cooperated or would not cooperate. Other factors mentioned by ginners to support their belief that the one-variety program could not operate successfully or would not be beneficial to farmers were the great variations in soil type which would make a high degree of standardization impossible and probably prevent assembling cotton in even lots in small local markets. Other ginners indicated that they believed farmers would realize greater profits from the growth of short-staple cotton rather than the type of cotton generally adopted in a one-variety program; or that the one-variety program would favor buyers only and that individual growers would not profit.

MARKETING PRACTICES OF PRODUCERS

Sources of Quality and Market Information

The competitive position of producers frequently has been weakened in the past by a lack of knowledge of the quality of cotton produced on the one hand

and by a lack of information regarding current market prices on the other. In 1935-36 sixty percent of the growers in the United States sold their cotton without any knowledge of the grade and staple and about 30 percent were dependent entirely upon buyers for this information[1]. Over 35 percent had no information on current market prices except the price offer of the buyer and on additional 10 percent reported that the only price information they had at time of sale was that which was obtained verbally[2]. Without this quality and price information it was impossible for producers to determine whether or not prices offered for their product were in accord with the central market evaluation of its worth.

Data collected in 1947-48 indicate considerable improvement in the dissemination of quality and market information. Significant differences still were reported between areas, however, in the proportions of growers having such information.

No producers in either Arizona or the Plains area reported the sale of cotton without at least some information regarding its quality (table 22). In other areas, however, a substantial proportion of producers reported that they did not have such information. The proportion of these producers in the one-variety group was greatest in the Central area where over 15 percent indicated they did not have quality information. In the non-one-variety group the greatest proportion of producers lacking knowledge of the quality of their cotton was reported in the Southeast where over 25 percent of the reporting producers did not know the quality of cotton sold.

Buyers were one of the most important sources of quality information in both types of communities of the Delta, Central, and Southeast areas. In each of

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[1] Wright, J. W., Marketing Practices in Producers Local Markets, U.S.D.A., B.A.E., Washington, May 1938, pp. 20-23.

[2] Ibid, pp. 18-20.

Table 22. Proportion of Growers Obtaining Quality Information from Indicated Sources in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Source of quality Information	Southeast		Delta		Central		Plains		Ariz.
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.
	%	%	%	%	%	%	%	%	%
Buyer's class	36	56	43	71	50	67	22	15	7
U.S. Dept. of Ag. Class	46	6	20	4	28	3	78	85	93
Licensed Classer's class	1	1	9	4	-	-	-	-	-
Warehouseman's class	4	7	-	1	2	-	-	-	-
Grower's own class	1	2	4	7	2	1	-	-	-
Factor's class	-	-	4	3	-	-	-	-	-
Ginner's class	3	1	12	3	2	7	-	-	-
Grower not knowing quality of cotton sold	10	27	8	7	16	22	-	-	-
Total	100	100	100	100	100	100	100	100	100

[1] In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

these three areas, however, the proportion of producers dependent upon this source of information was much greater in the non-one-variety communities. In the Plains area and in Arizona, buyers were a relatively unimportant source of information.

The government classing service furnished quality information to most producers in both types of communities in the Plains and in the one-variety area of Arizona. The classing service was an important source of information for one-variety producers in other areas also, particularly in the Southeast where over 45 percent of these producers obtained quality information from this source. A

small number of non-one-variety producers utilized this service in the Southeast, Delta, and Central areas.

Other sources of quality information were of little importance in any area except the Delta where a substantial number of producers secured information regarding the quality of their cotton from licensed classers, ginners, or classed the cotton themselves.

Only small differences in the availability and source of quality information were revealed between the communities of the Southeast, Delta, and Central areas which were highly standardized, having attained 90 to 100 percent one-variety production and those communities where a lesser degree of standardization existed. In the highly standardized communities, a slightly smaller proportion of producers had no information regarding the quality of their cotton. In most areas a somewhat smaller proportion of the producers in the highly standardized communities utilized the government classing service and a greater proportion depended upon the buyer's class only.

As availability of quality information has increased, sources of market information also have been expanded and improved and the number of growers lacking this information has declined. The proportion of the producers reporting no price information or verbal information only was least in Arizona and the Plains (table 23). A slightly smaller proportion of producers reported no information or verbal information only in the highly standardized communities in the Southeast, Delta, and Central areas than in the communities reporting a lower degree of standardization. Most producers in all areas depended primarily upon the radio and newspaper as a source of information on cotton prices. A small number of producers in all areas obtained market information from gin bulletin boards, cotton factors and brokers, government price reports, or other sources. None of these latter sources was of much importance, however, except in the Delta where cotton factors or brokers

supplied a considerable number of producers with information on current market prices.

Table 23. Proportion of Growers Obtaining Market Information from Specified Sources in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Source of market information	Southeast		Delta		Central		Plains		Ariz.
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.
	%	%	%	%	%	%	%	%	%
Daily paper:									
Only	7	6	2	7	1	4	2	-	3
In combination-1st choice	24	27	34	32	29	25	21	6	75
Radio:									
Only	9	10	4	3	11	9	12	9	2
In combination-1st choice	31	27	13	12	27	16	27	45	4
Gin Bulletin Board:									
Only	2	2/	4	2	2	2	7	3	1
In combination-1st choice	2	-	7	7	4	1	10	27	15
Cotton Factor or Broker:									
Only	1	2	2	13	1	3	-	-	-
In combination-1st choice	3	2	8	7	4	7	14	7	-
Coop. Assoc. Basis:									
Only	2/	-	-	-	-	1	-	-	-
In combination-1st choice	2/	-	-	-	-	-	-	-	-
Gov. Price Report:									
Only	2/	-	1	2	2/	-	-	-	-
In combination-1st choice	3	1	6	3	4	4	-	-	-
Verbal information - only	9	10	8	7	9	15	2	-	-
No information except price offer	7	12	9	5	7	11	5	3	-
Other	2	3	2	-	1	2	-	-	-
Total	100	100	100	100	100	100	100	100	100

[1] In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

[2] Less than .5 percent.

Number of Buyers Interviewed

Considerable efforts have been made to improve the competitive position of farmers in recent years, but results of this study indicated that although farmers

are now better informed, many still do not attempt to sell cotton on a competitive basis. Many farmers in all areas of the Cotton Belt sell their cotton to the first buyer interviewed and make no effort to obtain price offers from other buyers (table 24). The proportion of growers interviewing only one buyer before selling was lowest in Arizona, where the largest cotton enterprises were found and where the greatest degree of standardization of production existed; it was highest in the Plains area where the degree of standardization was least. Although some differences were reported in the proportion of one-variety and non-one-variety growers who interviewed only one buyer, the differences generally were too small to be significant and did not form a consistent pattern in the several areas.

Table 24. Proportion of Growers Interviewing Indicated Number of Buyers Prior to Sale of Cotton in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Number buyers interviewed	Southeast		Delta		Central		Plains		Arizona
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.
	%	%	%	%	%	%	%	%	%
None[2]	6	15	6	6	-	-	-	-	-
One	46	42	58	56	63	62	62	79	25
Two	20	22	20	16	27	21	35	15	28
Three	14	15	9	13	9	12	3	6	19
Four	9	5	4	4	1	2	-	-	9
Five or more	5	1	3	6	-	3	-	-	19

[1] In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

[2] Cotton sold by person other than producer.

Growers in communities where an advanced stage of varietal standardization had been attained were more inclined to interview several buyers prior to the sale of their cotton. This was true in both types of communities which were highly standardized. However, as pointed out in an earlier section, one-variety communitie generally have attained a higher degree of standardization.

A significant difference also was noted between large and small producers in the number of buyers interviewed prior to sale. In each area larger-than-average producers interviewed more buyers before selling than did small producers. Also, a greater proportion of large producers sold cotton through brokerage firms which obtained bids from several buyers on each bale or lot of cotton.

Factors Determining Choice of Buyer

Most producers in all areas were free to choose the purchaser of their cotton entirely on the basis of the price offered. Of the total number of producers interviewed in 1947-48, over one-half reported that they sold their cotton to the buyer making the highest bid or considered to have the best price (table 25). The relative importance of this factor generally was greater in one-variety communities. It was most important in the highly standardized area of Arizona where 95 percent of the producers reported that the price offer was the most important factor in determining the choice of buyer and least important in the non-one-variety communities of the Plains where less than 40 percent of the producers reported the price offer as the dominant factor in their choice. Several other factors closely associated with the price offer also were important in the choice of the buyer. These included confidence in the buyer and satisfaction with the first offer received. The lack of an alternative buyer made a choice impossible in a number of communities, particularly in the Central area. A considerable number of producers in several areas reported that custom was a major factor in the choice of buyers

Table 25. Proportion of Growers Giving Indicated Reason for Choice of Buyer in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Reason for choice of buyer	Southeast		Delta		Central		Plains		Ariz.
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.
	%	%	%	%	%	%	%	%	%
Highest bidder or considered to have best price	58	45	50	54	51	43	41	37	95
Satisfied with first offer	5	6	6	5	5	7	2	3	-
Same price from all buyers	8	8	5	4	4	5	19	6	-
Guaranteed highest price	-	-	1	-	1	-	2	-	-
Agreement by buyer to pay premium on cotton produced under cotton improvement program	-	-	-	-	2/	-	-	-	-
No other buyer available	7	4	5	10	21	23	2	6	-
Confidence in buyer	5	8	6	6	4	7	3	3	-
Friendship	2	1	3	5	1	-	-	3	-
Indebted to buyer	1	3	5	1	-	2	2	-	-
Business connection with buyer	1	2	1	-	1	1	-	-	-
Buyer selected by landlord	2/	2/	2/	-	-	-	-	-	2
Ginner pays more for cotton ginned at own plant	1	2/	1	2	2/	2	3	-	-
Ginner buys only cotton ginned at own plant	-	-	1	8	2/	-	3	3	-
Custom	5	8	5	1	9	7	19	33	-
Purchased on basis of quality	-	-	6	-	1	-	-	3	-
Most liberal weights	2/	1	1	-	-	1	-	-	-
Prefer selling cooperatively	1	2/	2/	-	1	-	-	-	-
Sell to landlord	1	1	1	1	-	1	-	-	-
No special reason	2	8	1	3	-	1	2	3	-
Convenience	3	5	2	-	1	-	2	-	3
Total	100	100	100	100	100	100	100	100	100

[1]In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

[2]Less than .5 percent.

but this factor was most important in the Plains. Relatively few producers reported the same price offer from all buyers with the number of such growers being greatest in the Plains. Also, very few indicated that indebtness was a major factor in determining the choice of buyer.

Number of Buyers Patronized

In addition to interviewing only one buyer before selling their cotton, the majority of producers sold their entire crop to a single buyer or through a single marketing agency (table 26). In the Delta the proportion of growers disposing of their crop to one buyer or through a single agency was higher in the one-variety communities than in the non-one-variety ones, while in the Southeast, Central, and Plains areas the reverse was true.

Table 26. Proportion of Growers Patronizing Indicated Number of Buyers in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Number of Buyers patronized	Southeast		Delta		Central		Plains		Arizona
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.
	%	%	%	%	%	%	%	%	%
One buyer[2]	63	66	73	59	64	66	52	58	3/
Two buyers	28	27	21	31	31	23	43	36	3/
Three or more	9	7	6	10	5	11	5	6	3/

[1]In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

[2]Includes producers disposing of cotton through a brokerage or commission firm.

[3]No data.

The difference between the one-variety and non-one-variety communities of the Delta in the concentration of sales with a single buyer is probably due to two factors: (1) the larger producers who predominate in the one-variety communities tend to dispose of their entire crop through a single commission firm, and (2) the close relationship between ginners and one-variety producers and the importance of ginners as buyers of cotton in the area.

Sources of Funds for Producing and Marketing Cotton

In all areas except Arizona, large proportion of the producers in both types of communities supplied all or the major part of the financing for the production and marketing of their cotton from their own funds during the 1947-48 season (table 27). No substantial differences existed between types of communities in

Table 27. Proportion of Growers Using Funds from Indicated Sources for the Producing and Marketing of Cotton in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Source of funds	Southeast		Delta		Central		Plains		Ariz.
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.
	%	%	%	%	%	%	%	%	%
Own funds	68	61	43	49	62	55	72	76	13
Commercial bank	15	15	20	24	27	29	21	18	13
Ginner	2	2	16	2	2	3	-	-	-
Supply merchant	2	3	1	6	1	4	2	-	-
Production Credit Association	8	7	12	7	5	5	5	6	9
Individuals	5	9	4	5	3	2	-	-	-
Finance companies	-	-	-	-	-	-	-	-	65
Other	-	3	4	7	-	2	-	-	-
Total	100	100	100	100	100	100	100	100	100

[1]In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

the source of funds. Commercial banks and production credit associations were the main sources of credit funds in the Southeast, Delta, Central, and Plains areas. A considerable volume of credit was furnished to growers in the Delta, however, by gins and supply merchants. In Arizona the majority of producers obtained credit through the gins owned by the large finance companies operating in that area. In no area did a substantial number of growers report that credit was obtained from independent cotton buyers.

Time and Place of Sale of Cotton

Some variations between the one-variety and non-one-variety groups and between large and small producers were reported in the time and place of sale of cotton (table 28). The most striking differences, however, were those which existed among the major producing areas where, because of differences in location in respect to mill markets or in cultural practices, varying marketing methods and facilities have been developed. The time and place of selling by producers in communities with highly standardized one-variety production differed only slightly from other producers in any area.

Gin or street markets were reported to be the principal selling place of the producers in all areas. In the past a considerable volume of the cotton sold in this market was seed cotton, but in 1947-48 the only area reporting any appreciable amount of cotton sold in the seed was the Central Belt. Gin or street markets were patronized by a proportionately greater number of non-one-variety producers in all areas except the Delta. Also, it was found that the gin or street markets were favored by a greater portion of small producers in both types of communities. The difference between the large and small producers in the extent to which they utilized this market was unusually great in the Delta where 75 percent of smaller-than-average producers disposed of their cotton at the gin or street market compared with about 15 percent of larger-than-average producers

selling in this market.

The local cotton yard or warehouse was the second most important place of sale. This market was particularly important in the Southeast where a very large volume of cotton moves from local markets directly to mills without being compressed. In that area small warehouses frequently are operated in conjunction with gins. Many operators of these gin-warehouse enterprises also buy cotton from their clients outright or handle it on a commission basis.

Table 28. Proportion of Growers Reporting Cotton Sold at Indicated Time and Place, in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Time and place of sale	Southeast		Delta		Central		Plains		Ariz.
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.
	%	%	%	%	%	%	%	%	%
At gin or street market:									
In seed	1	2	-	1	6	11	-	-	-
In bales									
Immediately	32	38	40	34	43	44	65	61	19
Later	14	12	20	8	15	12	9	21	39
At local cotton yard or warehouse:									
Immediately	12	13	2	7	4	4	3	3	5
Later	36	30	8	17	2	3	23	15	14
At farm	1	2	1	3	1	3	-	-	-
From cotton buyers' tables:									
Immediately	1	-	7	13	18	14	-	-	-
Later	3	1	22	17	11	9	-	-	-
Forward selling	-	2	-	-	-	-	-	-	23
Total	100	100	100	100	100	100	100	100	100

[1] In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

A large volume of cotton is sold across the buyers' tables in both the Delta and Central areas. Those utilizing this method of sale, however, were predominantly larger-than-average producers; the difference between large and small producers

in regard to this practice was particularly marked in the Delta.

A strikingly different method of sale known as forward selling has developed in some areas particularly among large producers in Arizona and in a few communities of the old Cotton Belt. This transaction - usually handled by a gin or in some cases through a broker - is of two types (1) contract selling, and (2) hedging. Where contract selling is practiced the grower generally signs a contract with the gin agreeing to deliver a stated number of bales of the first cotton picked. At the time the contract is made, the price is fixed in terms of the October or December future quotation since delivery generally will be made in those months. The basis may be fixed at that time or at a later date. Where hedging is practiced the producer's agent, either ginner or broker, sells a stated number of cotton futures for the producer. This transaction is then closed out when the producer's cotton is ready for sale.

The majority of producers in all areas except in Arizona followed the practice of disposing of all or the bulk of their crop immediately after it was ginned. A proportionately greater number of non-one-variety producers followed this practice in most areas but small producers in both types of communities more generally sold their cotton immediately. Considerable variation was noted among the major producing areas in the time of sale. Immediate selling was most common in the Central and Plains areas and least common in Arizona.

Factors Affecting the Choice of Time to Sell

The factors determining the time of sale of cotton were about the same in both one-variety and non-one-variety communities (table 29). Considerable variation in the importance of these factors was evidenced among the major producing areas, between large and small producers, and between producers who sold cotton immediately after ginning and those who sold at a later date.

Table 29. Proportion of Growers Reporting Major Determinant in Choice of Time to Sell Their Cotton in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Reason	Southeast		Delta		Central		Plains		Ariz.
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.
	%	%	%	%	%	%	%	%	%
To meet obligations	16	20	18	23	17	19	4	7	5
Price considered most favorable	47	43	43	35	36	32	33	23	81
To avoid loss in weights	-	1	2	1	-	-	-	-	-
Custom to sell immediately	26	27	27	33	44	45	60	68	5
To avoid storage, insurance, and other charges	1	1	2	-	1	1	-	-	-
Convenience	9	7	8	8	2	3	3	2	2
No storage facilities	-	2/	2/	2/	-	-	-	-	-
Other	1	1	-	-	-	-	-	-	7
Total	100	100	100	100	100	100	100	100	100

[1]In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

[2]Less than .5 percent.

The period when price was considered most favorable was by far the most important factor in the determination of time of sale in Arizona and was also a major factor in the Southeast and Delta. In the Plains and Central areas, however, this factor ranked second in importance as a determinant in the time of sale. Custom was the primary force determining the choice of the majority of growers in the Plains and was of considerable importance in all other areas except Arizona. The pressure to meet obligations was an important factor in the formation of the growers' decisions in the Southeast, Delta, and Central areas

but was relatively unimportant in the Plains or Arizona. Convenience was the dominant factor influencing a substantial portion of the growers' decisions as to the time of sale in the Southeast and Delta but was not very important in other areas.

Major differences also were revealed between large and small producers in the importance of the various factors affecting the choice of time to sell by a comparison of these groups. A greater proportion of the larger producers in most areas based their decision of when to sell on the price offer and their opinion of the future courses of price. On the other hand, the decisions of a greater proportion of smaller producers in all areas were determined by convenience, habit, or pressure of obligations.

The importance of factors determining the time of sale also varied sharply between those producers who sold cotton immediately after ginning and those who sold at a later date. Producers who sold cotton immediately after ginning in 1947-48 were much more influenced in their choice of the time to sell by custom, the need to meet obligations, and convenience than were producers who sold at some later period. Moreover, a considerably smaller proportion of the producers selling immediately reported that consideration of price was the major determinant of the time of sale.

Basis of Sale

The bulk of the cotton produced in both one-variety and non-one-variety communities in all areas was sold on the basis of some type of sample classification (table 30). This basis of sale was used more frequently in the one-variety communities, however, and was particularly common in the one-variety communities where a 90-100 percent varietal standardization had been attained.

Table 30. Proportion of Growers Reporting Indicated Basis of Sale in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Basis of sale	Southeast		Delta		Central		Plains		Ariz.
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.
	%	%	%	%	%	%	%	%	%
Sample classification: Grade, staple, character and variety	3	1	9	7	2	1	-	-	-
Grade and staple	70	60	59	55	76	66	100	100	97
Grade only	5	12	1	3	2	1	-	-	-
Staple only	-	2/	1	-	-	-	-	-	-
Hog-round	21	25	30	33	15	21	-	-	3
Seed cotton	1	2	-	2	5	11	-	-	-
Total	100	100	100	100	100	100	100	100	100

[1]In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

[2]Less than .5 percent.

Moreover, in most areas a greater proportion of the larger-than-average producers in both groups sold cotton on the basis of a sample classification. The only exceptions were in the Plains area where all producers - both large and small - reported the sale of cotton on the basis of a sample classification and in the non-one-variety group of the Southeast where a somewhat higher proportion of the smaller producers sold cotton on this basis.

Grade and staple were the most widely used descriptions in the purchase of cotton from producers in all areas. A very few producers in the Southeast, Delta, and Central areas reported the sale of cotton on the basis of grade only or staple only. A few producers, particularly the larger ones in the one-variety communities of the Southeast, Delta, and Central areas, reported selling cotton on the basis

of grade, staple, character, and variety. No producers reported cotton sold on this basis in the Plains where a great many varieties were produced and the lowest degree of varietal standardization was found; nor in Arizona where buyers need give less attention to the character of individual bales because of almost complete varietal standardization.

A considerable proportion of all producers in the Southeast, Delta, and Central areas reported the sale of cotton on a hog-round basis with the proportion of non-one-variety producers reporting this type of sale being slightly greater than the proportion of other producers. It is possible, however, that the proportion of producers actually selling on a hog-round basis was not as great as these reports of the growers would indicate. Many producers customarily sell cotton in relatively large lots on which buyers will quote an average price even if the quality of individual bales has been determined by the buyer and used as a basis for establishing the average price. Such transactions are frequently erroneously referred to by producers as hog-round sales.

The conclusion that hog-round selling was less prevalent than the growers' reports would indicate is further supported by the fact that very few growers reported the same price offer from all buyers - a condition which frequently exists where hog-round buying is widely practiced. Also, reports of buyers patronized by the growers interviewed suggest that the amount of cotton bought on a hog-round basis was considerably less than the growers' reports would indicate, particularly in the Southeast and Central areas. Moreover, these reports of the buyers indicate that the amount of cotton bought on the basis of grade, staple, variety, and character is greater than was reported by the growers.

Sale of Cottonseed

Differences between one-variety and non-one-variety groups in the practices followed in selling cottonseed were too small to be significant in any area and

were not consistent among areas (table 31). Farmers in both groups generally sell all of their cottonseed to the gins at the time of ginning. A significant number of producers in the Southeast, however, reported that cottonseed were sold or traded directly to oil mills or fed to livestock, while the sale of cottonseed as planting seed was of some importance in the Delta and Central areas.

Table 31. Proportion of Growers Disposing of Seed in Indicated Manner in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Method of disposal	Southeast		Delta		Central		Plains		Ariz.
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.
	%	%	%	%	%	%	%	%	%
Sell at gin	80	78	86	90	84	96	97	91	100
Sell as planting seed	3	1	9	6	9	-	2	3	-
Sell direct to oil mill	12	10	5	4	5	-	-	-	-
Feed to livestock	5	11	-	-	2	4	1	6	-

[1] In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

Growers' Reports on Buyers' Reactions to the Possession of Class Cards

The direct use of the class cards furnished by the government classing office in the sale of cotton varied from area to area, ranging from a high of approximately 100 percent utilization in the almost completely standardized one-variety area of Arizona to a low of less than 10 percent in the non-one-variety group of the Delta (table 32). The degree to which cards were used depended upon the extent to which gins participated in the classing program; the practices followed by growers in regard to the time of sale; and the attitude of buyers toward the government classing program.

Table 32. Proportion of Growers Reporting Indicated Reactions of Buyer to Possession of Class Cards in Selected One-Variety and Non-One-Variety Communities[1] 1947-48 Season

Item	Southeast		Delta		Central		Plains		Ariz.
	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.	Non-One-Var.	One-Var.
	%	%	%	%	%	%	%	%	%
Growers reporting cotton sold on cards without sampling	10	2	3	3	15	5	88	87	98
Proportion of production sold on cards without sampling	6	1	2/	2/	25	9	83	93	96
Growers reporting class card used as guide by buyer	18	4	4	1	14	2	22	9	-
Proportion of production sold to buyers using class card as guide	17	4	2	2/	16	1	10	2	-
Growers reporting passive resistence to cards	8	2/	4	2	18	15	24	-	-
Growers reporting buyer dissatisfaction because:									
Class inaccurate	3	1	5	2	4	2	17	-	-
Class too high	5	2/	1	-	14	6	10	-	-
Class too low	1	-	1	-	-	-	-	-	-
Classers not competent	2	2/	5	-	10	2	3	-	-
Growers not having card or not showing it to buyer	57	66	72	92	43	74	-	9	-
Growers reporting that buyer could not sell on this class	2	-	2	-	11	6	7	3	-

[1] In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

[2] Less than .5 percent.

As indicated previously, most of the gins in the non-one-variety communities of the Southeast, Delta, and Central areas did not submit samples to the government classing office. Some of the gins in the one-variety communities either

submitted no samples or submitted samples on only a portion of their total ginnings. Thus, many growers interviewed did not receive classing cards. Others, who did receive cards, sold their cotton immediately after it was ginned and prior to the time the cards were returned to them; some growers did not show the cards to the buyers although they had the cards in their possession at the time of sale. Therefore, a large portion of the growers in these areas could not report the buyer's reaction to the possession of the cards because they had not attempted to use the card directly in the sale of their cotton. The proportion of the one-variety growers using the cards was, of course, considerably larger than the proportion of other growers but the growers in both groups who used the cards most generally were of larger-than-average size.

In these areas very few growers actually sold cotton on the basis of the card and the amount of cotton sold in this manner was very small. A somewhat larger proportion reported that buyers took the class card and used it as a guide in determining the price offer. A considerable number of the growers reported that buyers indicated that they believed the government class was inaccurate and that government classers were incompetent.

In contrast with the situation in the Southeast, Delta, and Central areas, most growers in the Plains and in Arizona reported that they used the class card as a basis for the sale of their cotton and that 80 to 95 percent of the cotton was sold on the basis of the classification shown on the cards and without submitting samples. In the Plains a number of buyers stated that the government classification of individual bales frequently was inaccurate because bales which were classed too high would offset the bales which were classed too low. They were willing to buy on the basis of the class card.

MARKETING PRACTICES OF FIRST BUYERS

Types of Buyers Operating in Local Markets

The growers interviewed in 1947-48 disposed of their cotton through a number of different types of marketing agencies (table 33). The most important types of first buyers from the standpoint of number and volume of cotton handled were ginner buyers, independent buyers, and shipper buyers. Other types, of lesser importance in most areas included salaried buyers, buyers for cooperative marketing agencies, commission buyers or brokers, and mill buyers. Frequently the buyers interviewed handled cotton in several ways - purchasing some cotton outright and handling some for a commission or fee; they sometimes grouped cotton and sometimes passed it on to the next buyer in mixed lots.

Ginner buyers in most instances were gin operators who purchased cotton on an independent basis and did not act as an agent, although in a few cases these buyers were salaried employees of the gin operators and purchased cotton for the gin. The areas from which these buyers purchased cotton were small and the average size of their purchases was considerably less than that of other buyers. Ginner buyers were found most frequently in the Southeast, Delta, and Plains areas, but the volume of cotton bought by them was a relatively small part of the total cotton handled by the buyers interviewed in these areas.

Independent buyers included those who purchased cotton outright and generally did not group cotton into even running lots for resale. These buyers operated in a somewhat wider market than the ginner buyers and the average size of their purchases was considerably larger. Independent buyers were the most important type of marketing agency patronized by the growers interviewed in the Southeast, Central, and Plains areas and accounted for 30 to 65 percent of the total cotton handled by the buyers interviewed in these areas.

Table 33. Type of Buyers and Proportion of Total Cotton Purchased by Each Type in Selected Communities[1] 1947-48 Season

Item	Ginner buyer	Ind. buyer	Comm. men or broker	Coop-erative	Shipper buyer	Salaried buyer	Other
Southeast							
No. Buyers	53	57	14	10	31	11	8
Percentage of total bought by type of buyer	7	32	7	6	33	8	7
Delta							
No. Buyers	22	11	11	1	12	2	-
Percentage of total bought by type of buyer	8	13	32	1	43	3	-
Central							
No. Buyers	10	49	9	4	5	4	5
Percentage of total bought by type of buyer	2	39	7	17	10	16	9
Plains							
No. Buyers	7	11	-	1	2	5	-
Percentage of total bought by type of buyer	12	65	1	4	2	15	-
Arizona							
No. Buyers	-	1	-	-	5	-	1
Percentage of total bought by type of buyer	-	2/	-	-	2/	-	2/

[1] In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

[2] No data.

Commission men, factors, and brokers acted as agents for the purchaser or seller and received a commission or fee for their services. These agents generally handled a larger volume of cotton than ginner or independent buyers and operated

in a considerably wider market. This type of marketing agent was patronized more generally by large producers and was found most frequently in the Delta. In that area they handled approximately one-third of the total cotton disposed of through the marketing agencies interviewed.

A small amount of cotton in most areas was disposed of through cooperative marketing organizations. These organizations usually handled the cotton for the producer on a commission basis. The practice of disposing of cotton through these organizations was most common in the Central area where several large cooperative marketing organizations operated. A substantial number of cooperative buyers was found in the Southeast but the average size of the marketing operations of cooperatives in that area was relatively small.

Shipper buyers were important purchasers of cotton in most areas but were more numerous and handled larger proportions of the cotton in the Southeast, Delta, and Arizona. These buyers purchased cotton outright and generally grouped it into lots of similar grade and staple for resale. Closely associated with the shipper buyers in their functions and methods of operation are the salaried buyers who are usually paid employees of cotton merchants or shippers. These buyers were found in most areas and were particularly important in the Central and Plains areas. The shipper and salaried buyers operated over a very wide territory and the average size of their purchases was considerably larger than that of any other group.

In addition to the buyers described above, there was a small group of other types of first buyers or buyers who operated in more than one capacity and could not be classified with any particular group.

Source of Cotton Purchased by Buyers Interviewed

The source of cotton handled by buyers in Arizona was not reported but in other areas most of the cotton handled in 1947-48 by buyers interviewed was

purchased directly from farmers (table 34). Many buyers, however, also purchased a considerable volume of cotton from ginners, merchants, or other buyers. Shipper and salaried buyers were the largest purchasers from these sources. Ginners were an important source of cotton purchased by independent, shipper, and salaried buyers in the Southeast, Central, and Plains areas but were relatively unimportant in the Delta. Only a small amount of cotton was purchased from merchants by the buyers in any area except the Southeast where a substantial volume was secured from this source by shipper and mill buyers. Shippers and brokers or commission men handled a considerable portion of the cotton secured from other buyers. This type of transaction was found most frequently in the Delta, but was important in all areas.

Table 34. Source of Cotton Handled by Marketing Agencies in Selected Communities[1] 1947-48 Season

Source	Southeast	Delta	Central	Plains	Arizona
	%	%	%	%	%
Gin	19	3	23	28	2/
Merchants	7	-	1	3	2/
Other buyers	18	25	10	9	2/
Farmers and others	56	72	66	60	2/
Total	100	100	100	100	

[1] In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

[2] No data.

Basis of Purchase and Buyers' Access to Copies of Official Standards

Statements from buyers in all areas support the reports of growers that cotton generally was sold on the basis of quality. The majority of buyers based their purchases upon a classification of an actual sample of the cotton or upon the government class card (table 35). The proportion buying cotton upon this basis ranged from a low of 75 percent in the Delta to a high of 100 percent in the Plains and Arizona. Grade and staple were the two principal quality factors considered in classing each bale of cotton, although a very substantial number of buyers in the Southeast, Delta, and Central areas reported that they considered character and variety of cotton as well as grade and staple in determining the classification. Buyers in Arizona reported that they paid very little attention to these factors since only one variety was produced in that area, although they did take samples periodically to check grade, staple, and character of cotton from all gin points. A small number of buyers in the several areas reported that they considered only the grade in determining the classification. This practice was based generally upon the assumption that all the cotton offered to a buyer in any given market was of about the same staple length. A relatively small number purchased cotton on a hog-round basis or paid one price for all the cotton offered during any particular period without regard for variations in quality. Hog-round buying was reported by buyers in the Southeast, Central, and Delta areas but the proportion buying on this basis was much higher in the latter area. Ginner buyers made up most of the group reporting hog-round purchases although a few other buyers purchased cotton on this basis. As indicated previously, the proportion reporting hog-round purchases may be somewhat higher than that which actually existed since some round-lot purchases may have been reported in this catagory.

Table 35. Proportion of Buyers Purchasing Cotton on Indicated Basis in Selected Communities[1] 1947-48 Season

Basis of purchase	Southeast	Delta	Central	Plains	Arizona
	%	%	%	%	%
Sample classification:					
Grade, staple, character and variety	22	19	30	-	-
Grade and staple	73	54	68	100	100
Grade only	2	2	1	-	-
Staple only	-	-	-	-	-
Hog-round	8	25	12	-	-
Seed cotton	1	-	1	-	-

[1]In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

While official cotton standards are available at a nominal cost to anyone who wishes to purchase them, a relatively large number of buyers reported that they did not have access to these standards (table 36). Ginner buyers most frequently reported that they did not have access to official standards but some

Table 36. Proportion of Buyers Reporting Access to Official Standards for Grade and Staple in Selected Communities[1] 1947-48 Season

Item	Southeast	Delta	Central	Plains	Arizona
	%	%	%	%	%
Buyers having access to official standards for grade	48	49	67	54	100
Buyers having access to official standards for staple	47	47	66	42	100

[1]In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

buyers of each type lacked access to these standards. Less than one-half of the buyers interviewed in the Southeast and Delta areas reported that they had access to either official standards for grade or official standards for staple. A somewhat greater proportion of buyers in the Central and Plains area reported having access to these standards while all buyers in Arizona had access to the standards. The fact that such a large proportion of buyers in most areas could not compare the sample of cotton offered by the growers with the official standards cast some doubt upon their replies as to their methods of purchasing cotton, for it is generally agreed that accurate classing of cotton according to its quality characteristics require frequent reference to grade standard boxes and staple types. The effect of the utilization of the government classing service upon the method of sale is suggested by a comparison of the methods of purchases reported by buyers in various areas and upon their statements regarding access to official standards. In Arizona where greatest use was made of the classing service, no buyers reported purchasing cotton on a hog-round basis and all of them reported having access to official standards for grade and staple.

Markets on which Buyers Prices were Based

New York future quotations were used as a basis for determining the price offered growers by most of the buyers in all areas (table 37). The proportion of buyers using these quotations ranged from over 85 percent in the Delta to 100 percent in Arizona. A few buyers in each area except Arizona used price quotation of the nearest central market as a basis for determining price offers. In the mill sections of the Southeast a small number of buyers based their price offers on quotations received directly from mills or mill buyers. Only a very small proportion of the buyers in any area did not have a definite market or set of quotations on which to base price offers.

Table 37. Proportion of Buyers Reporting Prices Based on Indicated Markets in Selected Communities[1] 1947-48 Season

Basis of price offer	Southeast	Delta	Central	Plains	Arizona
	%	%		%	%
New York futures	90	87	88	92	100
Nearest central market	3	6	7	8	-
Mill prices	4	-	-	-	-
Ten designated spot markets	2/	-	-	-	-
No definite base	3	7	5	-	-
Total	100	100	100	100	100

[1] In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

[2] Less than .5 percent.

Weights on Which Settlements with Growers were Based

Compress or warehouse weights were used as a basis for the settlement of payments to producers for 65 to 90 percent of all cotton handled by the buyers interviewed in the several areas (table 38). The purchase of most of the remaining cotton was settled on the basis of gin weights, while weights of public weighers were used for the settlements of the purchase of only a very small amount. Gin weights were used most frequently in making settlements with growers by ginner buyers while other buyers or agents usually favored compress weight as a basis for settlement.

Table 38. Buyers Using Indicated Weights for Making Settlements with Growers in Selected Communities[1] 1947-48 Season

Item	Southeast	Delta	Central	Plains	Arizona
	%	%	%	%	%
Gins	15	10	29	17	100
Compress	75	90	65	83	-
Public Compress & other	10	-	6	-	-
Total	100	100	100	100	100

[1]In states of Alabama, Arkansas, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

Buyers Willingness to Purchase Cotton on the Basis of Government Classification

A large proportion of the buyers interviewed in each area indicated that they were willing to buy cotton on the basis of the grade and staple classification reported on the official government class card (table 39). The smallest proportion of buyers indicating their willingness to purchase on this basis was found in the Delta area where only about one-third reported that they would purchase on the basis of the government class. The proportion was slightly higher in the Southeast and Central areas but in the Plains and in Arizona 95 percent and 100 percent of the buyers, respectively, indicated their willingness to purchase on the government classification. Ginner, shipper, and cooperative buyers were more favorable to the purchase of cotton on the basis of the official class cards than other buyers. The strongest opposition was expressed by the independent buyers and commission agents. Buyers who reported that they were unwilling to purchase on the basis of the government classification frequently stated that they could not sell on this classification and some indicated that they believed that

the government classification generally was inaccurate and that government classers were incompetent.

Table 39. Proportion of Buyers Indicating Their Willingness to Purchase on the Basis of Official Government Class in Selected Communities[1] 1947-48 Season

Item	Southeast	Delta	Central	Plains	Arizona
	%	%	%	%	%
Percent of buyers	44	34	55	96	100

[1] In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

Methods Used in Transferring Risks

Larger buyers of all types generally attempt to offset, through the sale of futures, the risk of price changes during the time that they have cotton in their possession. Shipper buyers made the sale of futures directly through brokers, while salaried buyers or buyers for cooperatives reported daily to the organizations and the hedging operation was completed there. The sale of futures was practiced most frequently in Arizona where the average size of buying operations was largest and where shipper buyers predominated (table 40). Many smaller buyers, particularly ginner or independent buyers, in all areas sold cotton daily. A relatively large proportion of the buyers interviewed in the several areas reported that cotton was carried open, however, and no effort was made to transfer the risk of price changes. Buyers reporting that cotton was carried without any type of hedging operation were found most frequently among the ginner and independent buyers in the Southeast and the Delta, although a few shipper buyers in several areas indicated that they also followed this practice.

Table 40. Buyers Using Indicated Method of Transferring Risk in Selected Communities[1] 1947-48 Season

Method	Southeast	Delta	Central	Plains	Arizona
	%	%	%	%	%
Sale of futures	26	25	19	16	72
Report daily to firm	19	17	22	30	14
Sell all cotton daily	24	33	47	46	14
Carry cotton open	31	19	12	8	-
Other	-	5	-	-	-
Total	100	100	100	100	100

[1] In states of Arizona, Alabama, Arkansas, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

Basis of Grouping Cotton into Even-Running Lots

Grouping of cotton into even-running lots is practiced most frequently by the larger buyers and, therefore, was a more common practice in Arizona and the Plains where the largest buyers operated. Buyers not grouping cotton before re-selling or passing on to the next purchaser were found most frequently among the ginner buyers, independent buyers and commission men in the Delta and Southeast. The majority of buyers assembling cotton into even lots grouped on the basis of grade and staple only (table 41). A considerable number assembled cotton on the basis of grade, staple, and area of growth or grade, staple, and variety. A few of the larger buyers considered all four factors in assembling even-running lots, grouping cotton according to grade, staple, variety and area of growth.

Table 41. Proportion of Buyers Assembling Cotton into Even-Running Lots on the Basis of Indicated Methods of Grouping in Selected Communities[1] 1947-48 Season

Basis of assembling cotton	Southeast	Delta	Central	Plains	Arizona
	%	%	%	%	%
Grade and staple	45	33	63	96	72
Grade, staple, and location	5	13	12	-	14
Grade, staple, and variety	2	3	3	4	-
Grade, staple, variety, and location	2	6	2	-	-
Other	2/	6	-	-	-
Not grouped	46	39	20	-	14
Total	100	100	100	100	100

[1]In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

[2]Less than .5 percent.

Market Outlets of First-Buyers

The market outlets of first-buyers varied with the type and size of buyers and with differences in location of the buyers in respect to mills, central markets, and export points. In the Southeast and Delta half of the cotton handled by the buyers interviewed in 1947-48 was sold directly to mills (table 42). Most of the cotton disposed of in the manner was handled by shippers and independent buyers although a few commission merchants and ginner buyers also sold to mills. Most of the cotton handled by ginner buyers and all other types of buyers in the Southeast, however, was sold to cotton merchants, shippers, or exporters, while in the Delta most of the cotton handled by commission merchants and ginner buyers was sold to the larger cotton firms located in Memphis and New Orleans. Cooperative

Table 42. Proportion of Cotton Disposed of through Indicated Outlets by First-Buyers in Selected Communities[1] 1947-48 Season

Market outlets	Southeast	Delta	Central	Plains	Arizona
	%	%	%	%	%
Other local buyers	1	2	2	5	2/
Cotton merchants, shipper, and exporters	40	36	50	57	2/
Direct to mill	50	49	43	10	2/
Cotton factors and commission firms	5	9	4	28	2/
Other	4	4	1	-	2/
Total	100	100	100	100	

[1]In states of Alabama, Arkansas, Arizona, Georgia, Louisiana, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.

[2]No data.

marketing associations in the Delta disposed of most of their cotton through cotton factors or commission firms. A large volume of cotton from the Central area was sold directly to mills but this outlet was not the most important market for any group of buyers. Most of the cotton handled by first-buyers in this area was sold to cotton merchants located in the same state as the first-buyer. A substantial volume of cotton handled by the cooperatives in this area, however, was disposed of through cotton factors or commission firms. In the Plains only 10 percent of the cotton was sold by first-buyers directly to the mills and practically all of the remainder was sold to cotton merchants, shippers, or exporters. Shipper buyers in the Plains usually sold to merchants outside of Texas or Oklahoma but other buyers generally sold within those states. Buyers in Arizona were not

willing to reveal the volume of cotton disposed of through the various channels but did report that one of the most important market outlets was direct sales to mills in the Southeast.

In the sections of the Southeast where the cotton mills are concentrated, most of the cotton is moved from local markets to the mills by truck. In other sections of the Southeast, particularly in Mississippi and Tennessee, cotton is shipped by rail. In other areas, the bulk of the cotton is shipped by rail and only small amounts are moved by trucks generally to mills within the area.

SUMMARY

The present study revealed that in most areas one-variety groups were more highly standardized than the non-one-variety and planted better quality planting seed. It also revealed that producers in one-variety communities were better informed of the quality of their products and of market prices than other producers and that a greater proportion of the one-variety group availed themselves of the disinterested services of the government classing offices as a source of quality information. It is difficult or impossible to determine accurately the extent to which these developments were a result of the one-variety program, however, for the differences between organized and unorganized groups may be due partly to the larger size of the operators in the former group.

The difference between groups in their knowledge of quality and price has not resulted in many significant differences in the marketing practices. Growers in both groups generally interviewed about the same number of buyers prior to selling; they sold their cotton to about the same number and types of buyers; and they based the choice of buyer upon about the same factors although a slightly

higher proportion of one-variety growers based their choice of buyers primarily upon the price offered.

Some difference between the two groups of growers was apparent in the time and place that cotton was sold. Non-one-variety producers sold cotton at the gin or street markets immediately after it was ginned more frequently than other producers. The latter group was more inclined in most areas, to sell at a later date and to sell in a larger market. Again, this difference between the two groups may be due partly to the difference in size of the growers. The non-one-variety groups were composed of smaller producers whose decisions were determined more frequently by custom or the pressure of immediate obligations, while decisions of the larger producers of the one-variety groups, who usually had a better knowledge of the market, were determined more frequently by the price offered.

A second difference between the two groups was the basis of sale. A slightly higher proportion of the non-one-variety growers reported that cotton was sold on a hog-round basis and no allowance made by the buyer for variations in quality. Also, a slightly higher proportion of these growers sold cotton in the seed. A greater proportion of one-variety growers sold cotton on the basis of a sample classification and a slightly larger proportion reported the sale of cotton on a classification involving character and variety as well as grade and staple.

Growers' experience with class cards were only slightly different between the two groups. A considerably larger proportion of one-variety producers received class cards but the proportion reporting cotton sold on the basis of the class card and without a sample was only slightly larger than for the non-one-variety group. A large number of buyers in all areas reported their willingness to purchase on the basis of the cards, however, suggesting that in the Southeast, Delta, and Central areas where very few growers used the cards in direct sales, the

failure to make greater use of the classing service may be as much the producers' responsibility as the buyers'.

The degree to which producers were able to utilize the quality information furnished by the government classing service did not appear to be associated in any way with the degree of varietal standardization. In the Plains area, where the lowest degree of standardization existed, most of the cotton is sold on the basis of the official classification and buyers generally have accepted the classification. The Plains ranked just below Arizona - the area with almost complete standardization in the proportion of cotton sold on the basis of the government class cards. In the Southeast, Delta, and Central areas, which fell between the extremes of standardization, only a very small amount of cotton was sold on the basis of the class cards, and the official classification had won acceptance from a much smaller proportion of the buyers.

Although the one-variety organization work appears to have been influential in increasing standardization, relatively few 100 percent one-variety communities have developed except in the far West. Cotton produced in the present one-variety communities has not been identified as to variety and as long as mixed variety production continues, it will be extremely difficult to establish definitely the variety of the cotton and carry it as a part of the identification of each bale. Thus, the program has failed to provide large lots of identifiable cotton of similar grade, staple, and variety except in areas such as Arizona where almost complete 100 percent varietal standardization has been attained.